

### **REMARKS**

These remarks are responsive to the Office Action dated December 19, 2003. Currently, Claims 1-4, 7-10 and 15-22 are pending with Claims 1, 7 and 19 being independent.

The Examiner noted that Claim 9 is currently dependent upon claim 7, which does not provide antecedent for the elements recited in Claim 9, and that the correct parent Claim appears to be Claim 8. Applicant thanks the Examiner for bringing out this point. Claim 9 has been amended accordingly.

#### **35 U.S.C. 103(a)**

In the Office Action, dated December 19, 2003, the Examiner rejected Claims 1-4, 7-10 and 15-22 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,339,595 to Rekhter et al. (hereinafter "*Rekhter*") in view of Viswanathan et al. "Evolution of Multiprotocol Label Switching," IEEE Communications magazine, May 1998 (hereinafter "*Viswanathan*"). These rejections are respectfully traversed.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. MPEP § 2143.

The Examiner stated that *Rekhter* does not teach the shared network being a MPLS network but instead *Rekhter* discloses using a 'tag switching' network. (See col. 9 lines 45-51). To cure this deficiency the Examiner stated that *Viswanathan* discloses that tag switching is a prior technology to MPLS. But *Rekhter* is unrelated or teaches away from Applicant's claimed invention. That is, there is no suggestion or motivation in *Rekhter*.

Amended Claim 1 of the present application recites a virtual private network which enables private communications, over a shared MPLS network, between at least two private networks. It comprises a first router coupled to the shared Multi-Protocol Label Switching (MPLS) network and configured to dynamically distribute first router VPN information across the shared MPLS network, wherein said first router Virtual Private Network (VPN) information includes a VPN identifier which is assigned to said first router. It further comprises a second router coupled to the shared MPLS network and configured to dynamically distribute second router VPN information across the shared MPLS network, wherein said second router VPN information includes a VPN identifier which is assigned to said second router. Said first and second routers are also configured to establish a plurality of label switched paths therebetween, said label switched paths comprising at least two multipoint-to-point paths and further comprising at least one multi-point to multi-point path, and wherein said VPN identifier assigned to said first router is the same as said VPN identifier assigned to said second router.

*Rekhter* refers to circumstances where “enterprise networks simply assign their private-network addresses themselves. So their addresses are unique only within the particular enterprise: they may duplicate addresses that another customer enterprise uses. An [Service Provider] trying to use, say, an Internet-Protocol (“IP”) backbone as the backbone for different enterprise networks having overlapping address spaces needs to provide its P-routers with a way of identifying and selecting a route to the one of potentially many same-address destinations to which it should forward a packet.” (See Column 3, lines 27-36). *Rekhter* sets out to “reduce these problems by a judicious use of packet tagging. [Service Provider Edge] routers in systems that implement the present invention's teachings still use VPN-specific routing information in making their routing decisions . . . . (See Column 4, lines 34-37). It is respectfully submitted that the subject matter of *Rekhter* provides a technique to allow the duplication or overlap of addresses between customer enterprises.

*Viswanathan* refers to the evolution of Multiprotocol Label Switching, and notes that “Multiprotocol label switching (MPLS) is not a silver bullet to cure existing or forthcoming problems, but rather an enabling technology which addresses some of these

scaling issues [, including . . . bandwidth, routing, quality of service (QoS), and customer service provisioning.”]” (See page 165).

Neither *Rekhter* nor *Viswanathan* contains some suggestion or motivation to be modified or combined to achieve Applicant’s claimed invention. For example, in contrast to *Rekhter*, Applicant’s specification recites that “[c]ustomer routes should not be mixed with carrier routes. . . . Since the carrier network is being shared by many customers to provide VPN service, it is possible to have overlapping IP addresses. Therefore, this architectural property of not mixing carrier and customer IP address removes this problem.” (See Specification; Column 8, lines 30-31; Column 9, lines 1-3). In other words, the mixing of carrier and customer IP address is discouraged. In contrast, *Rekhter* suggests a technique for mixing carrier and customer IP addresses. Thus, *Rekhter* teaches away, and does not provide a basis for a suggestion or motivation to be combined with *Viswanathan* to achieve Applicant’s claimed invention.

The combination of *Rekhter* and *Viswanathan* do not realize the invention of Claim 1. The combination of *Rekhter* and *Viswanathan* does not support a prima facie case of obviousness as suggested by the Examiner. The Examiner is respectfully requested to reconsider and withdraw his rejection of Claim 1.

Claims 7 and 19 were rejected for the same reasons as Claim 1 and similarly are not rendered obvious by the combination of *Rekhter* and *Viswanathan* for at least the same reasons stated above with respect to Claim 1. Therefore, the rejection of claims 7 and 19 is respectfully traversed. The Examiner is respectfully requested to reconsider and withdraw his rejection of Claims 7 and 19.

Claims 2-4 and 15-18 depend from Claim 1. Claims 8-10 and 20-22 depend from Claims 7 and 19 respectively. As such, Claims 2-4, 15-18, 8-10 and 20-22 are not rendered obvious by the combination of *Rekhter* and *Viswanathan* for at least the same reasons stated above with respect to Claims 1, 7 and 19. Therefore, the rejections of Claims 2-4, 15-18, 8-10 and 20-22 are traversed. The Examiner is respectfully requested to reconsider and withdraw his rejections of Claims 2-4, 15-18, 8-10 and 20-22.

No new matter has been added.

The claims currently presented are proper and definite. Allowance is accordingly in order and respectfully requested. However, should the Examiner deem that further clarification of the record is in order, we invite a telephone call to the Applicants' undersigned attorney to expedite further processing of the application to allowance.

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Respectfully submitted,



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